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| 10/578,446 | 05/08/2006 | Augusto Nascetti | DE030379US1 | 7014 |
| 24737 | 7590 | 06/24/2009 | EXAMINER | |
| PHILIPS INTELLECTUAL PROPERTY & STANDARDS | | | FANG, PAKEE | |
| P.O. BOX 3001 | | | ART UNIT | PAPER NUMBER |
| BRIARCLIFF MANOR, NY 10510 | | | 2629 | |
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

| | | |
|------------------------------|------------------------|---------------------|
| Office Action Summary | Application No. | Applicant(s) |
| | 10/578,446 | NASCETTI ET AL. |
| | Examiner | Art Unit |
| | PAKEE FANG | 2629 |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on 01 April 2009.
 2a) This action is **FINAL**. 2b) This action is non-final.
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 1-12 is/are pending in the application.
 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
 5) Claim(s) _____ is/are allowed.
 6) Claim(s) 1-12 is/are rejected.
 7) Claim(s) _____ is/are objected to.
 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.
 10) The drawing(s) filed on 08 May 2006 is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

| | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ . |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date <u>03/12/2009</u> . | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| | 6) <input type="checkbox"/> Other: _____ . |

DETAILED ACTION

Response to Amendment

1. The amendment filed on 04/01/2009 has been entered and considered by examiner. Claims 1-12 are presented for examination.

Priority

1. Acknowledgment is made of applicant's claim for foreign priority & domestic priority under 35 U.S.C. 119(a)-(d). The certified copy has been filed in the application filed on 05/08/2006.

Information Disclosure Statement

2. The information disclosure statement (IDS) submitted on 03/12/2009 is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

Specification

Content of Specification

3. The following guidelines illustrate the preferred layout for the specification of a utility application. These guidelines are suggested for the applicant's use.

Arrangement of the Specification

As provided in 37 CFR 1.77(b), the specification of a utility application should include the following sections in order. **Each of the lettered items should appear in upper case, without underlining or bold type, as a section heading.** If no text follows the section heading, the phrase "Not Applicable" should follow the section heading:

(a) TITLE OF THE INVENTION.

- (b) CROSS-REFERENCE TO RELATED APPLICATIONS.
- (c) STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT.
- (d) THE NAMES OF THE PARTIES TO A JOINT RESEARCH AGREEMENT.
- (e) INCORPORATION-BY-REFERENCE OF MATERIAL SUBMITTED ON A COMPACT DISC.
- (f) BACKGROUND OF THE INVENTION.
 - (1) Field of the Invention.
 - (2) Description of Related Art including information disclosed under 37 CFR 1.97 and 1.98.
- (g) BRIEF SUMMARY OF THE INVENTION.
- (h) BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWING(S).
- (i) DETAILED DESCRIPTION OF THE INVENTION.
- (j) CLAIM OR CLAIMS (commencing on a separate sheet).
- (k) ABSTRACT OF THE DISCLOSURE (commencing on a separate sheet).
- (l) SEQUENCE LISTING (See MPEP § 2424 and 37 CFR 1.821-1.825. A “Sequence Listing” is required on paper if the application discloses a nucleotide or amino acid sequence as defined in 37 CFR 1.821(a) and if the required “Sequence Listing” is not submitted as an electronic document on compact disc).

4. The specification of the disclosure is objected to because the specification lacks **section headings** for the content of specification as illustrated above. Correction is required. See MPEP § 608.01(b) and 37 CFR 1.77(b).

Claim Objections

5. Claims 1 - 12 objected to because of the following informalities:

In claim 1 and 2, after the first introduction of “an activation signal”, all the “activation signal” thereafter such change into “the activation signal”. If that is not the intension of the applicant please clarify.

All the dependent Claims are also objected due to being dependent on the objected base Claims. Appropriate correction is required.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 1, 3 – 5, 7 – 8, and 11 – 12 are rejected under 35 U.S.C. 102(b) as being unpatentable over Kim (6362643).

8. In regard to claim 1, Kim discloses (Fig. 2) an array arrangement (22) comprising two or more groups (Left and Right group) of associated electronic units (Pixels) and each group of associated electronic units comprising one external trigger line (GL) and an addressing circuit (26 or 28) via which an activation signal (Vddsr or Vddbf) can be sequentially fed to the electronic units of the group (Col. 4 lines 63 – 64 and Col. 7 lines 7 – 37),

wherein the addressing circuit (26 or 28) of the group contains the following components:

- a) driver units (GD1 – GDn or RGD1 – RGDn) that are each disposed adjacently to an electronic unit (a Pixel) and connected to it (GD and the pixel are connected),
wherein every driver unit has at least one connection input (SSL) and at least one connection output (the output electrode next to the GD1 or RGD1) and is designed to receive a trigger signal (Vst) applied to the connection input (the input electrode atop of the GD1 or RGD1) (Col. 4 line 63 – Col. 5 lines 25) and, after receipt thereof (after receiving Vst), to deliver an activation signal (Vddsr or Vddbf) for a certain time duration to the connected electronic unit (Fig. 4 shows the time duration for the signal being applied to the pixel), and also to pass the trigger signal (Vst) to the connection output (Vst also travels to the output electrode);
- b) connecting lines (electrodes between 30 and 32) that link the connection inputs and

connection outputs of the driver units of the group serially to one another (the electrodes are serially connected link between the input and output);

- c) a single external clock line (CLK) connected to internal clock lines (the clock electrode in side of GD1 or RGD1) connected to each driver unit (CLK is connected to each GD) for clocking the trigger (Vst) and activation signals (Vddsr or Vddbf); (Col. 4 line 63 – Col. 5 lines 6) and
- d) a read out line (DL1) connected to each electronic unit of the group (linked to each pixel).

In regard to claim 11, this claim differs from claim 1 in that the limitation “a display device” are additionally recited. Kim discloses (Fig. 2) a display device (LCD). All identical limitations are rejected base on the same rationale as claim 1.

In regard to claim 3, Kim discloses (Fig. 2) the electronic units are disposed two-dimensionally in a regular pattern (the pixels are in a two dimensional regular pattern).

In regard to claim 4, Kim discloses (Fig. 2) it contains a plurality of equally large groups of associated electronic units (The left group and the Right group are equally large) in which the electronic units of each group are disposed in a similar way (Both groups are disposed in identical way).

In regard to claim 5, Kim discloses (Fig. 2) the electronic units of a group are disposed linearly or in block fashion (The pixels are disposed in a block fashion and linear).

In regard to claim 7, Kim discloses (Fig. 2) the electronic units (Pixels) are active light radiators (light emitter) or light switches.

In regard to claim 8, Kim discloses (Fig. 2) the driver units (GD1 – GDn or RGD1 – RGDn) contain at least one shift register (S/R).

In regard to claim 12, Kim discloses (Fig. 2) wherein each driver unit (GD1 – GDn or RGD1 – RGDn) is connected to a plurality of electronic units (Pixels) of the group.

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

10. Claims 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kim (6362643) in view of Lee (6421038).

In regard to claim 2, Kim discloses (Fig. 2) driver units. Kim does not explicitly discloses

an enable line and how enable line relation to driver units. However, Lee discloses (Figs. 18- 19) the driver unit (34) is connected to an enable line (EOL) for controlling the time duration (High or Low period) of the activation signal (GOE), and to at least one line for supplying at least one control voltage (Vdd) serving as an activation signal (Vdd is activating the transistors) (Col. 14 lines 35-45); Therefore, it would have been obvious for one of ordinary skill in the art at the time of invention to combine driver units of Kim with an enable line to control the duration of the activation signal of Lee to eliminate flickering and residual images (Lee, Col. 3 lines 46-50).

11. Claims 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kim (6362643) in view of Suzuki (20010013853).

In regard to claim 9, Kim discloses (Fig. 2) it is implemented as an integrated circuit (The device is implemented as an integrated circuit), But Kim does not explicitly discloses the circuit would incorporate silicon. However, Suzuki discloses (Fig. 2) the incorporation of silicon technology in the TFTs of the LCD [0049]. Therefore, it would have been obvious for one of ordinary skill in the art at the time of invention to combine TFT or integrated circuit of Kim with the incorporation of silicon in the TFT of the LCD display to transverse electric field and color layers formed in the form of stripes for convenience [Suzuki, 0049]

12. Claims 6 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kim (6362643) in view of Applicant Admitted Prior Art (AAPA).

In regard to claim 10, this claim differs from claim 1 in that the limitation “An X-ray detector” are additionally recited. Kim discloses all identical limitations base on claim 1, but Kim does not explicitly teach the incorporation of an X-ray detector in the circuit; however, according to applicant’s admitted prior art discloses X-ray detector can be incorporated into a pixel matrix display [0002]. Therefore, it would have been obvious for one of ordinary skill in the art at the time of invention to combine system components of Kim with the X-ray system of AAPA to make the system more flexible to emit and detect different wave-length of light from the screen; therefore, enhance the usage capability of the light emitter screen.

In regard to claim 6, Kim discloses (Fig. 2) the electronic units of a group are radiation pixels, connected to a read-out line (DL1). But Kim does not explicitly teach the pixels are radiation sensors, However, according to applicant’s admitted prior art the pixels can be light/radiation sensitive detectors/sensors [0002] for detecting radiation. Therefore, it would have been obvious for one of ordinary skill in the art at the time of invention to combine pixels of Kim with the radiation sensors of AAPA to make the system more receptive to different wave-length of light from the background of the screen; therefore, improving the resolution of color for the entire screen.

Response to Arguments

2. Applicant's arguments with respect to claims 1-12 have been considered but are moot in view of the new ground(s) of rejection.

In view of amendment, the reference Kim, Lee and Suzuki have been used for new ground of rejections.

Conclusion

3. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Inquiries

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to PAKEE FANG whose telephone number is (571)270-7219. The examiner can normally be reached on Mon-Friday 9 AM - 5 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chanh Nguyen can be reached on (571) 272-7772. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/PAKEE FANG/
Examiner, Art Unit 2629

/Chanh Nguyen/
Supervisory Patent Examiner, Art Unit
2629